

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Homi Bhabha Road, Mumbai-400 005

August 17, 2018

ASET Colloquium

Speaker : **Dr. Rajeev P.P. (*Rutherford Appleton Laboratory, UK*)**

Title : **Next-Generation Laser Technology**

Date & Time : **Friday 24 August 2018 at 16:00 hrs.**

Venue : **Lecture Theater (AG-66.)**

Abstract :

Since its discovery, lasers have transformed all walks of life - from enabling high-resolution movies to mimicking astrophysical conditions in the laboratory. Over the past decade, laser systems capable of delivering Petawatt power levels at high repetition rates have been developed. These developments now enable acceleration of charged particles to near-light speeds in a very compact plasma channel – a few mm as opposed to hundreds of meters required in a conventional accelerator. I will give an overview of the field, describing the latest developments and future directions, highlighting the cutting edge developments at the Rutherford Appleton Laboratory, UK and our recent collaboration with TIFR in this area.

About the Speaker:

Rajeev obtained PhD in Physics, in 2003 from TIFR. After a postdoctoral stint at the National Research Council, Canada, Rajeev joined the Rutherford Appleton Laboratory (RAL) in 2007. He currently heads Gemini – one of the most intense lasers in the world - and leads the Novel Accelerator Science activities at RAL and the lab's international collaborations in this area. He is also an associate member of the John Adams Institute, University of Oxford.



Dr. Satyanarayana Bheesette
(Coordinator, ASET Forum)